

Exploring Web-Based Teacher Effectiveness and Student Achievement

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ABSTRACT

The current study is two-fold. The first part of the study will utilize correlational research to explore if a correlation between teacher effectiveness and student achievement in Web-based courses exists. The second part of the study will explore if there are significant differences between the hospitality and education programs with regard to level of teacher effectiveness of Web-based courses and level of student achievement of students taking a Web-based course. Teacher effectiveness of Web-Based courses will be measured utilizing the Student Evaluation of Online Teaching Effectiveness (SEOTE) while student achievement will be measured utilizing final grades in the Web-based courses.

Keywords: *Web-based courses, teacher effectiveness, student achievement, hospitality courses*

INTRODUCTION

Since the economic downturn has brought about higher unemployment and greater competition for jobs, it has become commonplace to return to school (Bauman, 2009). As a result, demand for classes has increased. However, it may not be feasible due to time and/or distance restraints for people to take traditional face-to-face courses. Hence, colleges and universities are challenged to deliver classes in alternative formats, with hospitality and tourism programs no longer being an exception. New technologies afford students learning opportunities while offering accessibility and scheduling flexibility (Fu, Wang, Cecil & Hji-Avgoustis, 2006).

While the recent hospitality literature refers to Web-based learning in a social networking context (Kasvana, Nusair & Teodosic, 2010), acceptance and satisfaction with e-learning (Selim, 2007; Song & Bosselman, 2010) and learning theories in distance education (Tesone, Severt & Carpenter, 2008), little is written in the hospitality literature exploring pedagogies. Schott & Sutherland (2008) examined a multimedia based technique and active learning to engage students in a New Zealand hospitality program. Collins & Van Hoof (2002) considered the pros and cons of Web-based instruction. However, none of the studies have explored the relationship between teacher effectiveness and student achievement in hospitality Web-based courses, nor have comparisons been made between the hospitality discipline and other disciplines.

Therefore, the purpose of this study is two-fold. The first part of the study will explore the relationship between *teacher effectiveness* and *student achievement* in a Web-based learning environment. The second part of the study will explore if there are differences between the disciplines with respect to teacher effectiveness and student achievement in a Web-based learning environment.

Based on the above discussion, the current study will test the following three hypotheses:

- H₁: There is no significant difference between the education and hospitality program groups and the level of teacher effectiveness of Web-based courses as measured by the *Student Evaluation of Online Teaching Effectiveness (SEOTE)*.
- H₂: There is no significant difference between the education and hospitality program groups and level of student achievement as measured by the student final grades in the Web-based course.
- H₃: There is a relationship between teacher effectiveness of Web-based courses, as measured by *Student Evaluation of Online Teaching Effectiveness (SEOTE)* and level of student achievement as measured by the student final grades in the Web-based course.

LITERATURE REVIEW

Past research has advocated the use of constructivist models of learning as a standard for both designing and delivering Web-based courses (Bangert, 2004, 2005, 2006, 2008; Jonassen, 2003; Partlow & Gibbs, 2003). They are based on the mindset that learners can build (*construct*) their knowledge base through learning how to acquire necessary information and resources, problem identification and solving, understand new happenings, and given a new scenario, have the ability to learn how to learn. Teachers do not instruct students; hence, their role is not one of conveying knowledge to students. Rather, their role is to facilitate both the construction of meaning through the utilization of authentic learning experiences and the meaning making-process. Characteristics that have emerged from the constructivist paradigm include active learning, multiple lenses and perspectives, collaboration and cooperation among students, learner-centered learning and authentic learning experiences from the real world (Partlow & Gibbs, 2003).

In response to the growing concern over incompetent teaching at the time, Chickering & Gamson (1987) wrote a report promoted by both the American Association for Higher Education (AAHE) and the Johnson Foundation which provided the *Seven Principles of Good Practice*, a set of standards which is still utilized in higher education today. These principles were based on the previous 50 years' research on the manner in which teachers taught and the manner in which students learned (p. 4).

From Chickering & Gamson's (1987) report, a stream of research emerged. Newlin & Wang (2002) examined the appropriateness of applying the seven principles to Web-based course design and found that all seven principles were maintained in the current technologies.

Wainscott & Murphy (2006) focused on Web-based course design to encourage community suggesting that an effective Web-based course design should provide multiple opportunities for interaction to stimulate participation.

Teaching effectiveness is defined as “how an instructor can best direct, facilitate, and support students toward certain academic ends, such as achievement and satisfaction” (Gorsky & Blau, 2009, p. 1). The literature lists methods for gathering student evaluations of teacher effectiveness, such as the *Arizona Course Instructor Evaluation Questionnaire* utilized in higher education. However, Bangert (2004, 2005, 2006, 2008) argued that the evaluation did not properly examine the practices of constructivist models of learning in an effective Web-based environment.

Understanding the faculty perspective of Web-based teaching is important since a component of teacher effectiveness is attitude. Stronge, Ward, Tucker, Hindman, McColsky & Howard (2008, p. 208) posit that “effective” teachers with regard to student achievement possess a set of attitudes that are reflected in positive teacher-student relationships and student encouragement. Tesone (2004, p. 24) provides suggestions for faculty in teaching Web-based courses. In what he calls the instructional phase, it was noted that some teachers face challenges in moving from the “sage on the stage” mindset to that of a virtual instructor, where he or she merely facilitates the learning process.

METHODOLOGY

The population for this study is the total number of undergraduate hospitality and education students who will be taking a Web-based course from a large southeastern university. The programs were selected based on their rank in the university based on discipline as per the University’s Office of Institutional Research. The total number of students taking a Web-based course based on the current registration for the fall 2010 semester is 414 students in five Web-based classes (average of 83 per class) in the hospitality program and 759 students in 38 Web-based classes (average of 19 per class) in the education program.

Since neither the program groups nor class sizes are proportional to one another, the participants will be chosen utilizing non-proportional stratified random sampling with the strata being program (hospitality or education) and class for which the student is registered. The required minimum sample size is 410 total students, or 35 percent of the total population, allowing for a more precise and representative sample.

The design for this study will consist of two parts: the first part of the study will be correlational research, which will ascertain if a correlation between *teacher effectiveness* and *student achievement* in Web-based courses exists. The second part of the study will be causal-comparative research, which will ascertain if there are significant differences between the hospitality and education programs with regard to level of teacher effectiveness of Web-based courses and level of student achievement of students taking a Web-based course.

In this study, the dependent variable is student achievement, as measured by final class grades. The independent variable is teacher effectiveness, as measured by scores on the *Student*

Evaluation of Online Teaching Effectiveness (SEOTE) questionnaire developed by Bangert (2004). This questionnaire is a self-reported measure utilizing a six-point Likert scale where 6 = *Strongly Agree* to 1 = *Strongly Disagree* covering three to four questions per each of Chickering & Gamson's (1987) *Seven Principles of Effective Teaching*: student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations and diverse talents and ways of learning. In addition, there is an open-ended item where detailed comments may be made (Bangert, 2004).

The scores from the *Student Evaluation of Online Teaching Effectiveness (SEOTE)* will measure the level of teaching effectiveness of the Web-based courses. Descriptive statistics will be utilized to determine the mean score on all questionnaire items. Utilizing numerical values to measure final grades, descriptive statistics will be utilized to determine mean scores in each class.

To test Hypotheses One and Two, an independent t-test will be conducted on the mean scores of each group's *Student Evaluation of Online Teaching Effectiveness (SEOTE)* to determine if a difference exists in the level of teacher effectiveness as well as the mean scores of each group's final grades to determine if a difference in the level of student achievement exists between the two groups.

To test Hypothesis Three, a Pearson Correlation will be conducted on the scores of the *Student Evaluation of Online Teaching Effectiveness (SEOTE)* and final grades to seek if a relationship exists between *teacher effectiveness* and *student achievement*.

ANTICIPATED FINDINGS

The findings from the first part of the study are expected to show a positive correlation between teacher effectiveness and student achievement. The findings from the second part of the study are expected to show no statistically significant differences in the level of teacher effectiveness or level of student achievement between the hospitality and education program groups.

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